Supplemental data

(A) Amino acid sequence for the chimeric protein carrying the consensus repeats for MaSp1 and the BSP sequence. The linkers for the BSP sequence are underlined. The 6mer is in light gray and the BSP sequence in dark gray. (B) Amino acid sequences for the hydrophobic and hydrophilic blocks present in each of the six units forming the silk block copolymer (6mer).

(A)

MHHHHHHSSGLVPRGSGMKETAAAKFERQHMDSPDLGTDD
DDKAMAASGRGGLGGQGAGAAAAAGGAGQGGYGGLGSQG
TSGRGGLGGQGAGAAAAAGGAGQGGYGGLGSQGTSGRGG
LGGQGAGAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGA
GAAAAAGGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAA
GGAGQGGYGGLGSQGTSGRGGLGGQGAGAAAAAGGAGQG
GYGGLGSQGTSWPSRPTMKTALILLSILGMACAFSMKNLHR
RVKIEDSEENGVFKYRPRYYLYKHAYFYPHLKRFPVQGSSD
SSEENGDDSSEEEEEEEETSNEGENNEESNEDEDSEAENTT
LSATTLGYGEDATPGTGYTGLAAIQLPKKAGDITNKATKEKE
SDEEEEEEEEGNENEESEAEVDENEQGINGTSTNSTEAENG
NGSSGGDNGEEGEEESVTGANAEGTTETGGQGKGTSKTTT
SPNGGFEPTTPPQVYRTTSPPFGKTTTVEYEGEYEYTGVNE
YDNGYEIYESENGEPRGDNYRAYEDEYSYFKGQGYDGYDG
QNYYHHQGLMGH Stop

(B)

Hydrophobic Block:
GAGAAAAAGGAG
Hydrophilic Block:
QGGYGGLGSQGTSGRGGLGGQ

EDS characterization of the 6mer and 6mer+BSP films seeded with hMSCs and cultured for 3, 7 and 14 days. In all assays, the 6mer and 6mer+BSP without cells were used as controls.